ORIGINAL

**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**WASHINGTON, D.C. 20554**



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| **IN THE MATTER OF** | ) | |
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| **Advanced Television Systems** | ) | **MM Docket** |
| **And Their Impact Upon the** | ) | **No. 87-268** |
| **Existing Television** | ) | |
| **Broadcast Service** | ) | |

**JOINT REPLY COMMENTS**

On behalf of Bruce Merrill, Stephen Communications, Inc., and Walter Communications, Inc. (hereinafter "Permittees"), submitted herewith are reply comments in the above-captioned proceeding. The Permittees support the initial comments filed in this proceeding that propose that the Federal Communications Commission ("FCC" or "Commission") allow low power television ("LPTV") station licensees to use digital modulation in transmitting their signals. These comments were filed in response to the FCC's invitation set forth in Paragraph 53 of the Fifth Further Notice of Proposed Rulemaking in this proceeding requesting comment on whether LPTV stations should be afforded the opportunity to operate using digital technology.[1]

The Permittees each hold construction permits to build LPTV stations in such markets as Prescott, Arizona, Cedar Rapids, Iowa, Davenport, Iowa and Huntington, West Virginia. Under

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[1] In the Matter of Advanced Television Systems and Their Impact Upon Existing Television Broadcast Service, Fifth Further Notice of Proposed Rulemaking, MM Docket No. 87-268, released May 20, 1996.

Section 74.731(g)(3) of the Commission's Rules, LPTV station licensees may transmit subscription television programming over their channels. Accordingly, the Permittees intend to use their LPTV authorizations to construct facilities that provide multiple channels of "scrambled" programming that can only be received by the Permittees' customers who have a decoding device attached to their receiver. The Permittees ultimately intend to combine these LPTV channels with multipoint distribution service ("MDS") channels to provide a hybrid "wireless cable" system. They also would like to be able to provide high speed data access service using their LPTV frequencies, for which digital capability is essential. The Permittees are among a growing number of LPTV station licensees that are combining LPTV licenses and wireless cable licenses to offer a viable alternative to existing multichannel video programming services.

Last month, recognizing the substantial public interest in allowing video signals to be digitally transmitted, the FCC granted a request for a declaratory ruling submitted by several wireless cable system operators that digital modulation methods could be used in transmitting programming via MDS and ITFS channels.[2] In granting the request, the Commission noted that

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[2] In the Matter of a Request for Declaratory Ruling on the Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, DA 95-1854, FCC 96-304, released July 10, 1996 ("Wireless Cable Ruling").

employing digital technology would allow MDS and ITFS licensees to provide not only a signal that is crisper and cleaner, but also would allow such licensees "to increase their channel capacity and service offerings through the use of digital compression techniques."[3] Wireless cable system operators are now free to employ digital modulation in their transmissions, provided that no harmful interference is caused to other licensees.

The Permittees would like to take advantage of this ruling, but cannot do so unless the LPTV facilities they intend to employ to provide hybrid wireless cable service can also use digital modulation. Other wireless cable system operators that incorporate LPTV channels in their systems are in the same position. Accordingly, in order to ensure that hybrid wireless cable systems can compete vigorously with other multichannel video programming distributors, the Commission should act now to provide all LPTV licensees with the authority to use digital modulation.

Set forth below is the Permittees' response to the comments filed on this issue.

Summary of Comments. At least three parties submitted

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[3] Id. at 2.

comments on the issue of LPTV use of digital modulation.[4] All support a proposal that would allow wireless cable system operators employing LPTV channels in their systems to use this type of modulation. Roger Harders, operator of a hybrid system in Nebraska, notes that adoption of such a proposal would have two benefits: (1) it would allow for compression of video signals on a 6-to-1 ratio, meaning that Harders' 17-channel system could be effectively transformed into a system that offers 102 channels; and (2) it would allow a better quality signal to be delivered to customers that are farther away from the transmitting facilities. In addition to filing his comments, Harders joined in the submission of a Request For Declaratory Ruling that would provide wireless cable systems operating on UHF channels with the same relief afforded to systems using MDS and ITFS channels: namely, flexibility in selecting the type of digital transmission standard. In this Request, Harders suggested that LPTV stations be afforded the flexibility to use any standard for digital modulation, including the NTSC ATV standard proposed for full service stations, as long as the LPTV station could demonstrate that use of such standard caused no interference to any other television station. He also asked for authority to operate digitally where consent to do so was

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[4] See, e.g., Comments of Roger Harders; Comments of Byron St. Clair; Comments of Syncom Media Group, Inc.

obtained from co-channel and adjacent channel stations.

Byron St. Clair's comments are consistent with those of Mr. Harders. St. Clair also notes that digital transmission allows for the employment of compression technologies. If such technologies are employed, more channels of video programming can be transmitted over fewer LPTV channels. (As St. Clair suggests, this could be especially important if an LPTV licensee is compelled to relinquish his channel(s) to a full service operator.) St. Clair further comments that while many cable systems compete directly with wired cable systems, others are located in areas not served by a wired system. Other than direct-to-home satellite service, wireless systems often provide the only viable competition to wired systems in the multi-channel video programming distribution market. For this reason, the Commission should encourage technologies that will allow wireless cable systems to proliferate. St. Clair also supports flexibility in the selection of a digital modulation format, noting that a universal standard may actually be undesirable inasmuch as it reduces the security of the restricted information. Finally, St. Clair notes that interference concerns were appropriately dealt with in the Wireless Cable Ruling and that the spectral mask and energy dispersal requirements that wireless cable systems are required to meet in the ITFS/MMDS band can be applied in the UHF band.

Syncom Media Group, Inc. states that the FCC need not adopt a single standard, such as the NTSC ATV standard, for wireless cable systems using LPTV channels because the set top converters necessary for wireless cable reception can be adapted to fit any number of technologies. The FCC recognized as much, Syncom claims, in issuing the Wireless Cable Ruling.

Permittees' response. The Permittees agree with, and thus echo, all of these comments, and also add a few of their own. First, it is submitted that the Wireless Cable Ruling should serve as the model for the Commission's treatment of LPTV licensees' requests to use digital modulation. Not only did the Wireless Cable Ruling allow wireless cable system operators to use any standard that caused no demonstrable interference, it also authorized such operators to use their entire channel bandwidths in transmitting digitally. Such flexibility is imperative for LPTV licensees that operate or participate in the operation of wireless cable-like facilities, or use their channels in other ways. While the NTSC ATV standard may be appropriate for full service stations and LPTV licensees offering conventional broadcast service, this standard may not be well-suited to other uses of LPTV frequencies, such as subscription television and high speed data access to the Internet. For these reasons, LPTV licensees should be afforded flexibility to adopt the digital modulation format that is the most robust for the

particular type of service or services that they offer.

Second, it is submitted that the Commission can allow LPTV licensees to use digital modulation without requiring extensive testing. By definition, low power television service is a secondary service and thus must afford protection to full service stations. Part 74 of the Commission's rules sets forth stringent mileage separation, power limitation and interference protection rules that should be more than adequate to protect the transmission integrity of other stations. Furthermore, efficient digital encoding means that LPTV licensees can employ lower transmitting power levels than analog and still achieve coverage of the service area. This is true for any digital operation standard. Moreover, digital modulation will not appreciably alter any other interference-causing factors of video transmission. Thus, whatever standard is employed, there should be no concern that employment of digital modulation in the transmission of LPTV signals will cause harmful interference.

However, should the Commission insist on testing, it should be noted that, according to commenter Byron St. Clair, such tests of LPTV facilities are underway and are expected to be completed by next month. The Permittees will attempt to procure the results of these tests and submit them to the FCC once they are available.

The failure of the Commission to adopt the Permittees'

proposal would mean that operators of hybrid wireless cable systems would have to transmit analog signals on their LPTV channels in an otherwise all-digital system. Manufacturers do not make integrated set top converters that allow for the reception of both analog and digital signals, so customers with digitally-compatible converters would not be able to receive the analog LPTV channels. Further, because of the different technical characteristics of analog and digital technology, some viewers would be unable to view the analog channel offerings or would receive lower quality signals. No hybrid system operator would be able to market such an inefficient system, and thus no hybrid system operator will be able to take advantage of the Wireless Cable Ruling. Everyone, including both the burgeoning hybrid system operator market and the public that is thirsting for true competition in the multichannel video programming distribution market, loses under this scenario.

Finally, the Permittees believe that use of LPTV channels for services other than conventional free television broadcast service may be a means of saving LPTV service from total extinction. Since 1984, the FCC has tried to create incentives to develop LPTV service, and as a result has placed few restrictions on LPTV licensees. The use of LPTV stations to provide a form of wireless cable service has been encouraged by

the FCC.[5] Obviously, if multichannel LPTV service is to compete with other forms of video programming distribution that can transmit digitally, it also must be allowed to use digital modulation. Furthermore, digital authority will stimulate other uses for LPTV channels, such as high speed data delivery.

Accordingly, the Permittees request that the Commission give due consideration to the comments filed in this proceeding that advocate allowing LPTV stations to operate digitally under any standard that does not result in interference to other stations.

Respectfully submitted,

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[5] Communications Daily, May 20, 1994, p.2 (quoting Keith Larson, then Chief of the Commission's Low Power Television Branch).